

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: March 17, 2008
Reply to Office Action of September 17, 2007

-Page 34-

REMARKS/ARGUMENTS

Examiner's objections under 35 USC 112 to claims 1, 8, 69, 73, 74, 105, 107, 115, 118 and 122 have been addressed by amendments made to those claims. Claims 70, 119 and 120 have been canceled rendering the previous objections to those claims under 35 USC 112 moot.

All withdrawn claims except claims 101, 103 and 114 have now been canceled.

It should be noted that the status of independent claim 52 directed to a formwork assembly is unclear from the Examiner's Report. It is believed that claim 52 should still be pending.

Minor amendments have also been made to claims 15, 16, 22 and 114.

New claims 128 to 133 are formwork system claims based on withdrawn panel unit claims 84-86 and 88-90.

New claims 134 to 136 formwork system claims based on withdrawn panel unit claims 95-98.

New claims 137 to 141 are formwork system claims based on withdrawn panel unit claims 111-113 and 116 and 117.

Currently independent claims 1, 52, 55, 75, 91, 99, 118 and new independent claims 127, 128, 134 and 137 are pending and all are directed to formwork assemblies or systems.

Without conceding to any of the Examiner's rejections of any of the previous set of claims based on prior art as recited in the office action of September 17, 2007, to advance the prosecution of the present application, each of independent claims 1, 52, 55, 75, 91, 99 and 118 has been amended. For the following reasons, applicant respectfully submits that the independent claims currently on file, and all claims dependent thereon, are patentable over the prior art cited by the Examiner.

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: March 17, 2008
Reply to Office Action of September 17, 2007

-Page 35-

In general, the Examiner cited the Caine and MacDonald references against the previous independent claims being of the view that these claims are anticipated by these references. Additionally, and many of the other previous dependent claims were considered by the Examiner to obvious when combining Caine or MacDonald with one or more additional references.

MacDonald discloses a combined concrete floor combination of precast concrete slab units 22 to assist in forming a combination floor slab. Slabs 22 have connector links 22c located proximate perimeter edges. The slabs 22 are connected proximate their edges to truss joists 21. However, there is no intermediate support from truss joists 21 of the transverse or longitudinal spans of slabs 22. Additional concrete is poured on top of the concrete slab 22. The weight of the concrete on each slab 22 is distributed through the concrete slab 22 itself to the edges of the slabs 22. However, there is no issue with the concrete in the precast slab units 22 itself being able to support across the spans of the slabs 22 the upper layer of concrete poured on top thereof. It should also be noted that concrete slabs 22 are very difficult to move around and arrange into a formwork. Therefore, the system disclosed in MacDonald suffers significant disadvantages for use as a formwork system.

The Caine reference is very similar to MacDonald. Caine discloses a combined concrete floor or ceiling combination of ion of preformed concrete slabs D, that can be used to assist in forming a combination floor slab. While slabs D may be interconnected to stays B or C proximate their perimeter edges, the transverse and longitudinal spans of slabs D are not strengthened by a reinforcement unit. The weight of concrete above slabs D is distributed through concrete slab 22 itself to the edge supports. Additional concrete layer H is poured on top of the concrete slabs D. However, as slabs D are made of concrete, the spans of slabs D are able to support the upper layer of concrete poured on top thereof without any intermediate support. However, like in slabs 22 in the MacDonald reference, the concrete slabs D are very difficult to move around and arrange into a formwork. Therefore, the system disclosed in Caine suffers some of the same significant disadvantages for use a formwork system.

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: March 17, 2008
Reply to Office Action of September 17, 2007

-Page 36-

In rejecting as obvious based on the combination of Caine and Carroll references, former dependent claims 15, 16, 104, 105, 80, 81, 106, 107 and 120, the Examiner stated as follows:

"Carroll '641 teaches application of polystyrene panels 13 within a composite floor assembly to provide insulation therein. Therefore, to have provided the Caine 090 floor assembly with polystyrene as the or part of the panels (D), thus providing insulation within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Carroll '641"

The Examiner makes a similar statement with respect to the combination of MacDonald '024 reference and Carroll reference.

However, Applicant requests that the Examiner reconsider this position. Applicant notes that the Carroll reference is directed to a Sheet Metal Structural Shape and Use in Insulated Decking Structure and Method. While Carroll discloses a layer of insulation 13, the function of layer 13 is solely as insulation. The weight of concrete is fully supported by the layer of gypsum board 12 that sits directly beneath the entire insulation layer 13, with the gypsum board 12 being supported by the sheet metals shape 20. If the insulation layer 13 in Carroll were substituted for the slab D of concrete in Caine, the insulation layer 13 would be unsupported across its spans. Thus, the combination of stays B/C and insulation layer 13 would not be capable of properly supporting the concrete above the insulation layer when the concrete was in an unhardened state.

The same is true if the insulation layer 13 of Carroll were substituted for concrete slabs 22 in the MacDonald reference. The insulation layer 13 would be unsupported across its span. Thus, the combination of truss joists 21 in MacDonald and insulation layer 13 would not be capable of properly supporting the concrete above the insulation layer when the concrete was in an unhardened state.

By contrast, the applicants systems and assemblies as defined in each of independent claims 1, 52, 55, 75, 91, 99 and 118, as amended, in addition to providing a layer of insulation for the finished floor or roof structure, the foam plastic panel member itself plays an integral part

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: March 17, 2008
Reply to Office Action of September 17, 2007

-Page 37-

in supporting the weight of the unhardened construction material. The reinforcement unit and the foam panel members are configured to be capable of properly supporting the concrete above the panel member when the concrete was in an unhardened state.

It is also respectfully submitted that it would not have been obvious to consider utilizing a foam plastic material as it is not obvious that a foam plastic panel even in combination with a reinforcement unit, could be used as a substitute of a concrete slab, to support the entire weight of a layer of concrete for a floor or roof slab. Yet the synergistic effect of using the combination of a foam plastic panel member with a reinforcement unit, is that one has a combination which can be readily moved around when arranging the formwork, yet can withstand the weight imposed by a layer of unhardened construction material such as concrete for making a roof or floor slab.

Each of the independent claims 1, 52, 55, 75, 91, 99, 118 and 128 now provide for a panel member that is made from a foam plastic and provide that the panel member and the reinforcement unit are capable of supporting the construction material above the panel member when the construction material is in an unhardened state.

Accordingly, it is respectfully submitted that each of independent claims 1, 52, 55, 75, 91, 99, 118 and 128 is not obvious having regard to the combination of either of the Caine or MacDonald references, in view of the Carroll reference.

Claims 15 and 16 have been amended having regard to the amendments to claim 1.

In view of the amendments to the independent claims, and the arguments set forth above, applicant respectfully requests that the withdrawal of dependent claims 101, 103 and 114 be retracted.

New independent claim 127 has also been added. Claim 127 provides for a formwork assembly which has reinforcement component being integrated with a panel member to support the panel member transversely across said transverse span at a location intermediate the longitudinal ends of the panel member. At least part of the load from the unhardened

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: March 17, 2008
Reply to Office Action of September 17, 2007

-Page 38-

construction material is distributed from the panel member transversely to the supporting member by the reinforcement component. It is believed that this arrangement is patentable over the references cited by the Examiner.

New claims 134 to 136 are formwork claims based on withdrawn panel unit claims 95-98 and are also presented for the Examiner's consideration and provide for a panel member having a longitudinally oriented depression in an upper surface.

New claims 137 to 141 are formwork claims based on withdrawn panel unit claims 111-113, 116 and 117 are also presented for the Examiner's consideration.

In view of the foregoing amendments and remarks, favourable reconsideration and allowance of this application is respectfully requested.

Respectfully submitted,



Alistair G. Simpson
Registration No. 37,040

SMART & BIGGAR
438 University Avenue
Suite 1500, Box 111
Toronto, Ontario
Canada M5G 2K8
Telephone: (416) 593-5514
Facsimile: (416) 591-1690

March 17, 2008
92953-7
AGS/dsw